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REMARKS

Claims 1-19 are presently pending and stand variously rejected under 35 U.S.C. §§ 102 and 103. Claim 1 has been amended herein to further clarify that the junction members are characterized as being cleavable by the application of different wavelengths of electro-magnetic radiation, as described throughout the specification and claims as originally filed. This amendment is made solely to expedite prosecution. No new matter has been added as a result of this amendment and entry thereof is respectfully requested.

Information Disclosure Statement

The Office's assertion that the IDS submitted on July 22, 2002 did not comply with the rules set forth in the CFR is in error. In this regard, the Examiner asserts that because a certification under 37 C.F.R. 1.97(e) **or** the fee required by 37 C.F.R. 1.17(p) did not accompany this IDS, it cannot be considered.

In fact, the transmittal accompanying IDS in question specifically authorized the Office "to charge any fees under 37 C.F.R. 1.16, 1.17 or 1.21 which may be required by this paper ... to Deposit Account No. 18-1648." (See, second paragraph of transmittal, copy attached hereto). A copy of the stamped postcard indicating that the transmittal letter containing this authorization to charge the deposit account is also attached hereto for the Examiner's convenience.

In view of the foregoing, Applicants respectfully request that the Deposit Account should have been charged the $180 fee and the references considered by the Office. Copies of the 1449s are attached hereto so that the Examiner may now initial them to indicate they have been considered.

Rejections Under 35 U.S.C. § 102

The Examiner asserts that claims 1, 5, 6 and 10 remain rejected as allegedly anticipated under 35 U.S.C. 102(e) by U.S. Patent No. 6,258,117 (hereinafter "Camrud") for the reasons of record. Specifically, Figs 1A, 2A and 8A are alleged to illustrate a stent or coil having a plurality of detachment junctions, where said junctions are **inherently** capable of being cleaved by a different wavelength of electromagnetic radiation. (Office Action, page 3). In addition, claims 1-7, 10, 11, 13, 15 and 16 remain rejected as allegedly anticipated under 35 U.S.C. 102(e) by U.S. Patent No. 6,086,599 (hereinafter "Lee"). Like Camrud, it is maintained that the plurality of detachment members of Lee's devices are **inherently** capable of being cleaved by a different wavelength of electromagnetic radiation. (Office Action, page 3). Furthermore, the Office asserts that the claim limitation regarding cleavage of each junction by a different

wavelength of electro-magnetic radiation is process limitation and, accordingly, not related to the patentability of the product. (Office Action, page 5).

Because Camrud and Lee do not, explicitly or implicitly, describe or demonstrate the devices as claimed and, in addition, because the claims are not product-by-process claims, Applicants traverse the rejections and supporting remarks.

The Office has improperly ignored functional language in the claims

The Office has erred in interpreting the phrase "wherein each junction is cleaved by the application of a different wavelength of electro-magnetic radiation" as a process limitation. (Office Action, page 5). This phrase is clearly and unambiguously a characterization of the device in terms of its function. Indeed, functional limitations must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. (M.P.E.P. 2173.05(g) Functional Limitations, Eighth Edition). There is nothing inherently wrong with defining some part of an invention in functional terms and functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). In fact, where the particular intended result (in this case cleavage of each junction by a different wavelength of electromagnetic radiation) is a limitation of the pending claims it is entirely relevant to patentability.

Nonetheless, solely to expedite prosecution, the pending claims have been amended to clarify that the junction members are cleavable, thereby eliminating any confusion as to whether this phrase is a process limitation or a functional limitation. Thus, the claims expressly recite that the device includes a plurality of junction members that are each cleavable by a different wavelength of electromagnetic radiation. The Office cannot simply ignore this limitation and assert that any reference related to the implantable devices having multiple detachment junctions is relevant, much less than it renders the particularly claimed invention unpatentable.[1]

Lee and Camrud fail entirely to describe or demonstrate devices having multiple detachment junctions, wherein each junction is cleavable by the application of a different

[1] Even assuming, for the sake of argument only, that this phrase were a process limitation, the devices are still distinct from those of Lee and Camrud on the basis of their cleavage by different wavelengths of electro-magnetic radiation. A product that is patentably distinct from a prior art product on grounds other than the production process, the concerns that justify ignoring the process limitation in determining patentability do not exist. See *Atlantic Thermoplastics Co. Inc. v. Faytex Corp.*, 23 USPQ2d 1481, 1489-1490. Since Applicants have established that the claimed device is distinguishable from the devices described in Lee and Camrud, these references cannot anticipate the pending claims no matter whether the claim language is read properly as a functional limitation or improperly interpreted as a process limitation.

wavelength of electro-magnetic radiation. Rather, these references plainly describe and demonstrate devices in which multiple detachment junctions are each cleavable using the same means (*e.g.*, application of heat or the same wavelength of electromagnetic radiation). Accordingly, based on the fact that neither Lee nor Camrud disclose the functional characteristics relevant to patentability, neither reference can possibly anticipate the pending claims.

The references do not inherently teach the claimed subject matter

The Office has also erred in asserting that Camrud and Lee inherently disclose the claimed devices. Under the doctrine of inherency, a reference can anticipate a claim only if the missing element is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Rosco Inc. v. Mirror Lite Co.*, 64 USPQ2d 1676 (Fed. Cir. 2002) citing *Cont'l Can Co. v. Monsanto Co.*, 20 USPQ2d 1746 (Fed. Cir. 1991). In other words, inherent anticipation requires that the missing descriptive material is "necessarily present," not merely probably or possibly present, in the prior art. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 63 USPQ2d 1597 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999)).

In the pending application, devices having multiple detachment junctions cleavable by different wavelengths of electro-magnetic radiation are not specified in either Lee or Camrud. Thus, the question is not whether Lee or Camrud's junction members inherently are capable of being cleaved by different wavelengths of electro-magnetic radiation, but whether one skilled in the art would read these references as inherently disclosing the implantable devices as claimed. There is no evidence in the record to support a finding that one skilled in the art would so read Camrud of Lee. To the limited extent that Lee or Camrud disclose implantable devices with multiple detachment junctions, each junction is cleaved by the application of the same mechanism (*i.e.*, the same wavelength of radiation, the same temperature, etc.). Thus, the concept of a device having multiple detachment junctions, with each junction cleavable by application of different wavelengths of electromagnetic radiation is entirely absent from Camrud and Lee. Hence, these references do not explicitly disclose the claimed devices. Further, these references do not in any way inherently disclose devices as claimed.

In sum, because Carmud and Lee fail to describe or demonstrate the characteristics of the claimed devices, as recited in the claims, these references do not anticipate any of the pending claims and withdrawal of the rejection is in order.

Rejections Under 35 U.S.C. § 103

The Examiner has also rejected claims 8 and 9 as allegedly obvious over Lee. Claims 12, 17-19 stand rejected as allegedly obvious over Lee in view of U.S. Patent No. 6,102,917 (hereinafter "Maitland"). (Office Action, pages 3-4).

Lee is cited as above with regards to claim 1-7, 10, 11, 13, 15 and 16. Maitland is cited for teaching that laser energy can be applied to release an object from a catheter. Thus, the Examiner maintains that:

> It would have been obvious to one or ordinary skill in the art to use laser light to provide radiant energy as taught by Maitland in the system of Lee in order to separate the detachment members such that when the junction is cleaved, energy is removed. (Office Action, page 4).

Because the Office has not applied the proper legal standard to determining obviousness, Applicant traverses the rejections and supporting remarks.

As previously noted, a *prima facie* case of obviousness cannot be maintained where the references fail to teach or suggest all the limitations of the claims. MPEP 2143.03. Further, contrary to the Office's assertion, obviousness **cannot** be predicated on what is unknown. *In re Shetty, supra* quoting *In re Sporman,* 150 USPQ 449 (CCPA 1966). In addition, as discussed above in detail, functional limitations must be evaluated and considered.

Here, the pending claims are directed to assemblies that necessarily include a device having multiple junction members at which detachment can occur. Each detachment junction of the device is cleavable by application of a different wavelength of electromagnetic radiation. There are absolutely no teachings in the cited references that provide the motivation to arrive the claimed assemblies. Lee is directed entirely to micro-devices made of shape memory polymers in which the mated connections are all detached (or reattached) using the same mechanism, namely by thermal heating. (See, Lee, column 3, lines 11 to 31). Nothing in Lee would reasonably lead one of skill in the art to devices in which each detachment junction is cleavable by different wavelengths of electromagnetic radiation, as claimed by Applicants. Thus, Lee fails to teach all the limitations of any of the pending claims and, additionally, provides no motivation to combine its teachings with Maitland.

For its part, Maitland, like Lee, does not describe, demonstrate of suggest assemblies that include devices as claimed. Therefore, the combination of Lee and Maitland would in no way

lead one skilled in the art to the claimed devices. Indeed, all of the references are completely silent as to devices having multiple junction members, each member cleavable by a different wavelength of electromagnetic radiation. Thus, there is no motivation to combine the references and, since obviousness cannot be predicated on inherency, a *prima facie* case of obviousness cannot be sustained. Accordingly, Applicant respectfully requests that the rejections under section 103 be withdrawn.

In sum, because the claims are not obvious over any combination of the cited references, the rejections are improper and Applicants request that it be withdrawn.

CONCLUSION

For the reasons discussed above, Applicants submit that the claims are in condition for allowance and request early notification to that effect.

If the Examiner has any further issues or wishes to discuss any of the foregoing, he is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Version with markings to show changes made

1. (Amended) An implantable device comprising a plurality of detachment junctions, wherein each junction is [cleaved] cleavable by the application of a different wavelength of electro-magnetic radiation.

Currently Pending Claims

1. (Amended) An implantable device comprising a plurality of detachment junctions, wherein each junction is cleavable by the application of a different wavelength of electro-magnetic radiation.

2. The device of claim 1, wherein the electro-magnetic radiation is light.

3. The device of claim 1, wherein one or more junctions comprise a shape memory polymer.

4. The device of claim 2, wherein one or more junctions further comprise one or more dyes or pigments.

5. The device of claim 1, wherein the implantable device comprises a vaso-occlusive coil.

6. The device of claim 1, wherein the implantable device comprises a stent.

7. The device of claim 1, wherein the implantable device comprises a filter.

8. The device of claim 2, wherein the light is visible light.

9. The device of claim 2, wherein the light is non-visible light.

10. An assembly for use in delivering an implantable device comprising
    (a) an implantable device according to claim 1; and
    (b) a deployment mechanism.

11. The assembly of claim 10, wherein the deployment mechanism comprises one or more electro-magnetic radiation transmitting devices.

12. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more fiber optic cables.

13. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more light-transmitting fluids.

14. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more light-transmitting wires.

15. The assembly of claim 11, wherein the implantable device comprises a vaso-occlusive coil.

16. The assembly of claim 11, wherein the implantable device comprises a stent.

17. The assembly of claim 11, further comprising

(d) a source of electro-magnetic radiation attached to the delivery mechanism.

18. The assembly of claim 17, wherein the electro-magnetic radiation is light.

19. The assembly of claim 18, wherein the light source comprises a laser.